

NWS FORM E-5 (11-88) (PRES. by NWS Instruction 10-924) U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) WFO Jackson, Mississippi
MONTHLY REPORT OF HYDROLOGIC CONDITIONS	REPORT FOR: MONTH YEAR September 2014
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	SIGNATURE DATE 10/17/2014

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

☒ An X inside this box indicates that no river flooding occurred within this hydrologic service area.

Synopsis...

This September was very warm and dry; it seemed like the summer season did not want to be cut short a single day. All ASOS (Automated Surface Observing System) sites finished with an average of two or more degrees above normal for the month. Hattiesburg and Vicksburg-Tallulah actually ranked as their top 8th warmest Septembers on record. All ASOS sites measured more than an inch below normal for the month too, except for Hattiesburg. Greenville and Greenwood both had their 6th and 4th driest Septembers on record, respectively. Hattiesburg, however, measured more than 1.5 inches above normal.

The first two days of September were very summer-like, i.e. afternoon showers and high temperatures in the 90s. A front then passed through ArkLaMiss on the 3rd and brought some decent, widespread rainfall. A few isolated locations received 3+ inches of rain. The front passed through quickly and high pressure set up along the East Coast, allowing return flow and diurnal showers to resume. On the 7th and 8th, another front tracked through the HSA (Hydrologic Service Area). This system did not bring nearly as much rainfall as the previous front but did drop 0.75-1.00 inch of rain in the far southeast part of the area, including Hattiesburg.

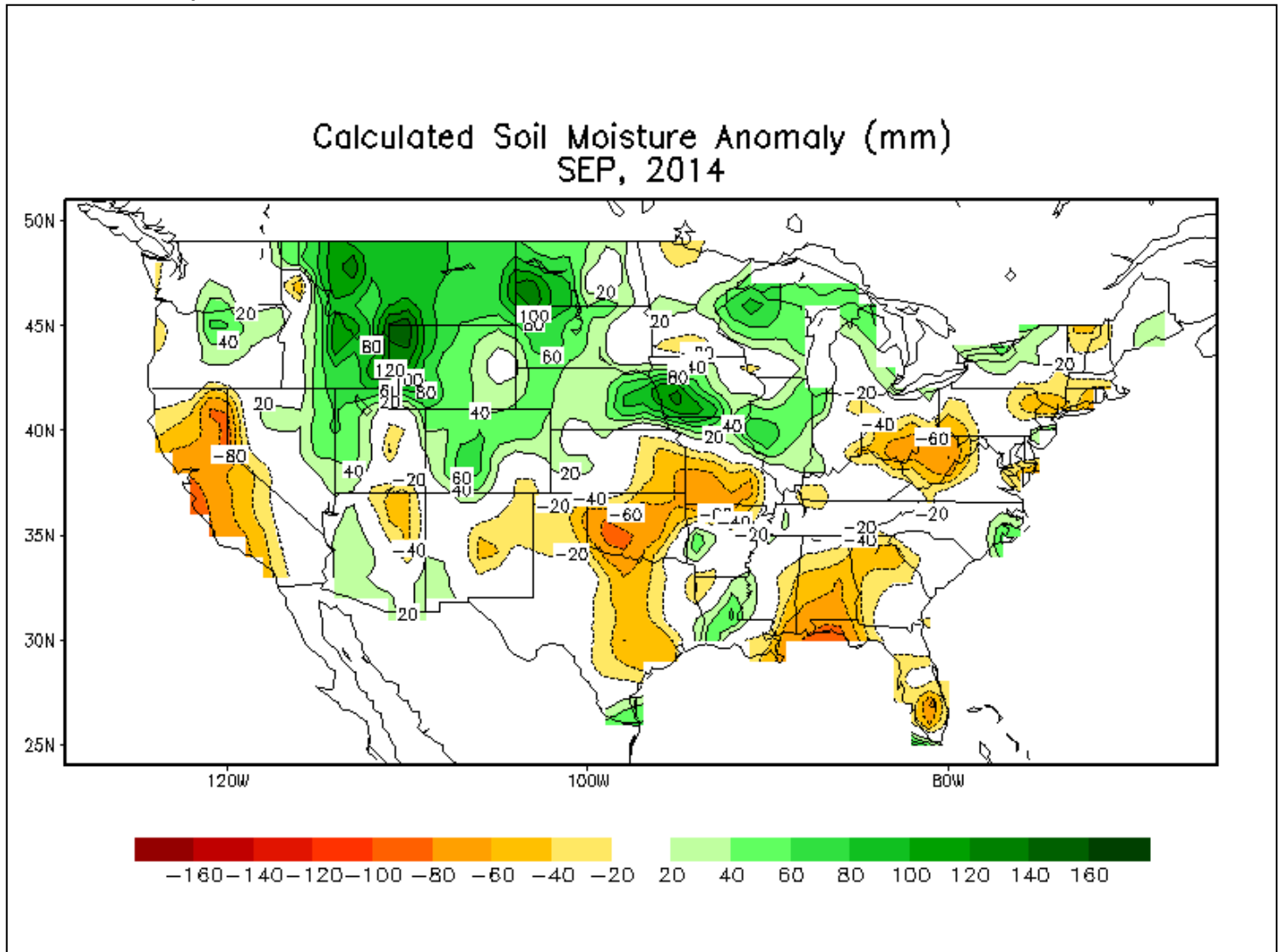
The next few days were quiet as the front stalled out along the coast. The next weather-maker was a strong Canadian low pressure system which brought a cold front through the Midwest and East Coast. The front lagged through our HSA on the 13th and brought a little bit of severe weather, some good rainfall to areas south of the Natchez Trace Parkway, as well as a hint of fall-like weather.

Significantly drier air swept in behind the front and kept the HSA dry for about a week. On the 19th, an upper shortwave triggered some storms over, mostly, Mississippi. The greatest amounts of rainfall were 1.5 inches or more in Smith, Jasper, and Sunflower Counties.

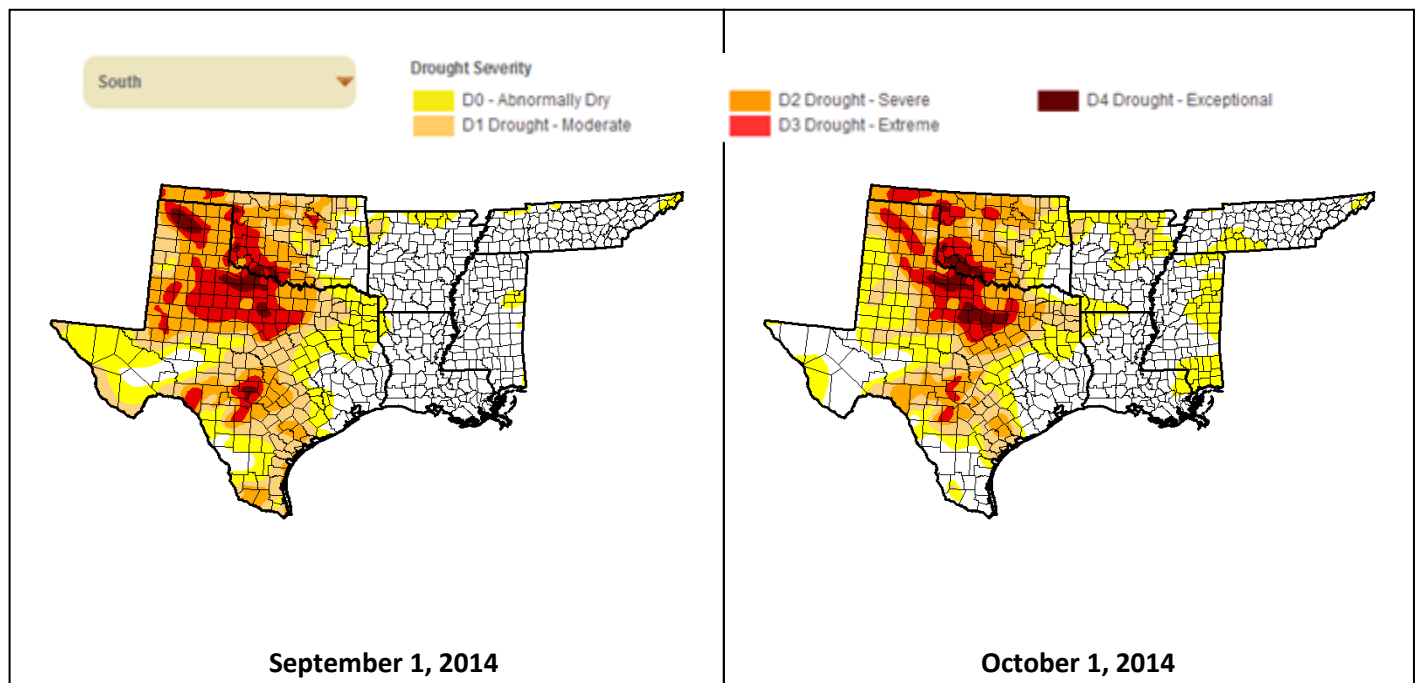
On the 22nd, the first day of autumn, a cold front pushed through the ArkLaMiss. It did not bring much rain to the area though, except for a very isolated inch of rainfall to Attala County, MS. This front brought the first real feel of fall, ironically, at the most perfect time. High pressure, along with dry weather and cooler temperatures, built in afterwards and remained through the rest of the month.

River and Soil Conditions...

Soil Moisture Map:

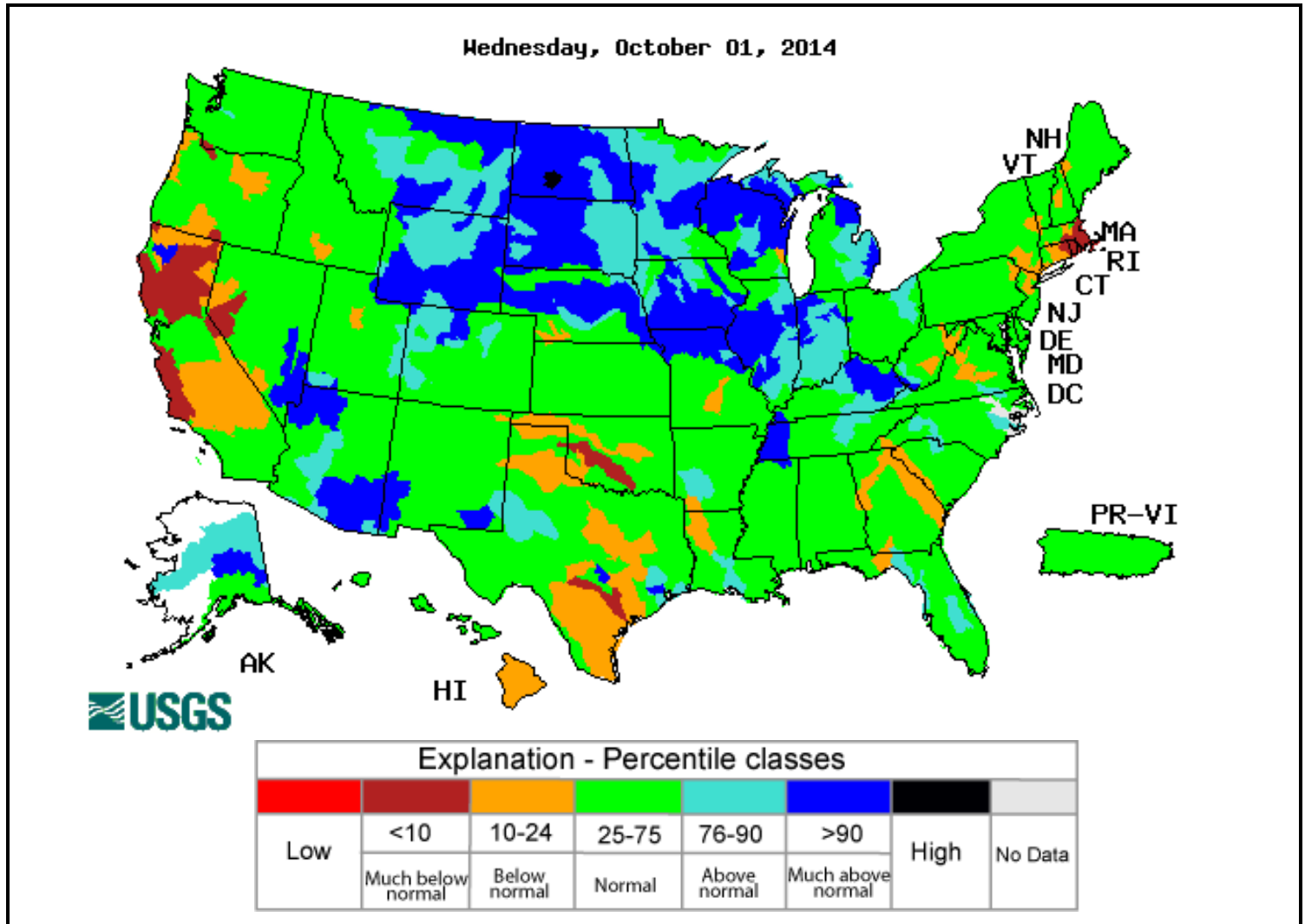


Drought Comparison:



Streamflow:

The United States Geological Survey's (USGS) September 2014 river streamflow records were compared with all historical September streamflow records. The average September streamflow was normal throughout the HSA.



River Conditions:

No flooding occurred along the river systems in the HSA. For the conditions of the Mississippi River from Arkansas City to Natchez, refer to the hydrographs on the next page.

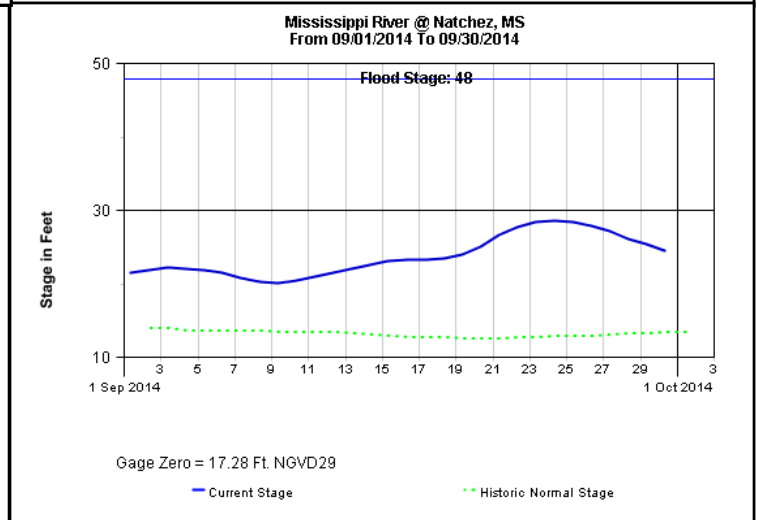
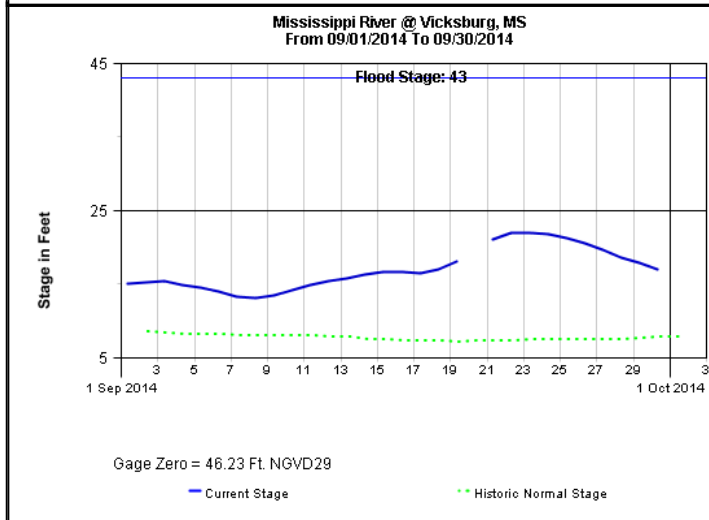
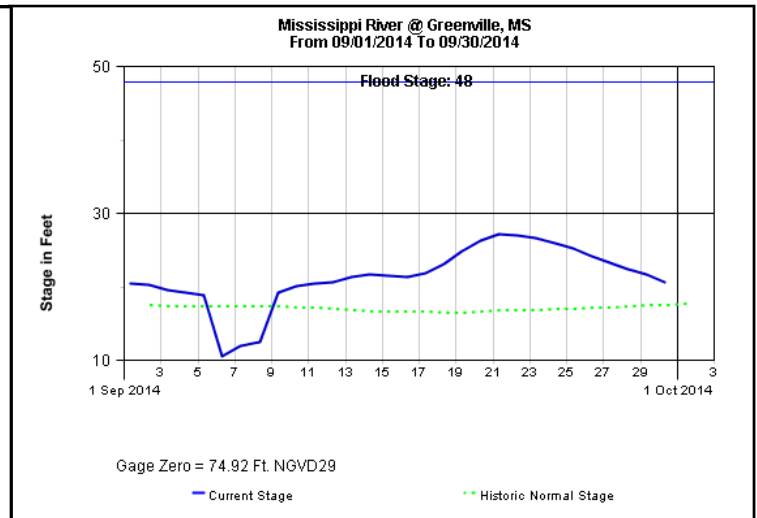
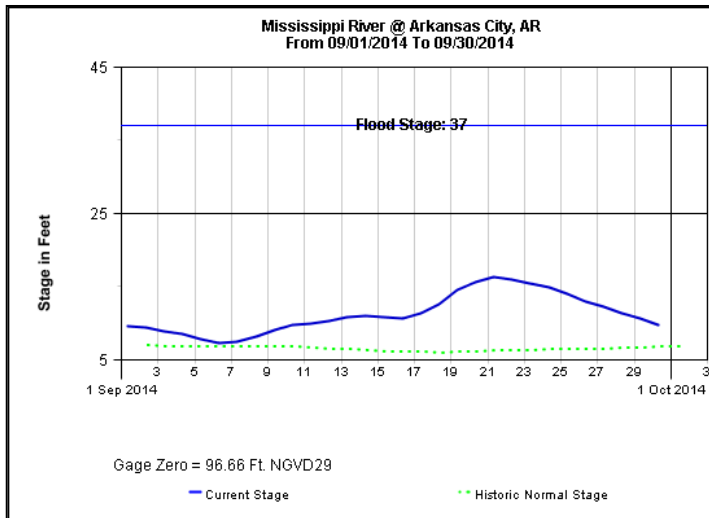
Climatic Outlook and Flood Potential:

The climatic 90 day outlook has a distinct El Nino look to it. Temperatures are projected to be below normal with rainfall projecting to be above normal during the period. A weak El Nino is forecast to begin in November and last into the Spring of 2015. Therefore, based on current soil moisture, streamflow, and the 3-month weather outlook, the flood potentials are as follows:

Pearl River System: Average.
Yazoo River System: Average.
Big Black River System: Average.
Homochitto River System: Average.
Pascagoula River System: Average.
Northeast LA and Southeast AR: Average.
Tombigbee River System: Average.
Mississippi River: Average.

Mississippi River Plots September 2014

Plots Courtesy of the United States Army Corps of Engineers



Monthly Preliminary High and Low Stages:

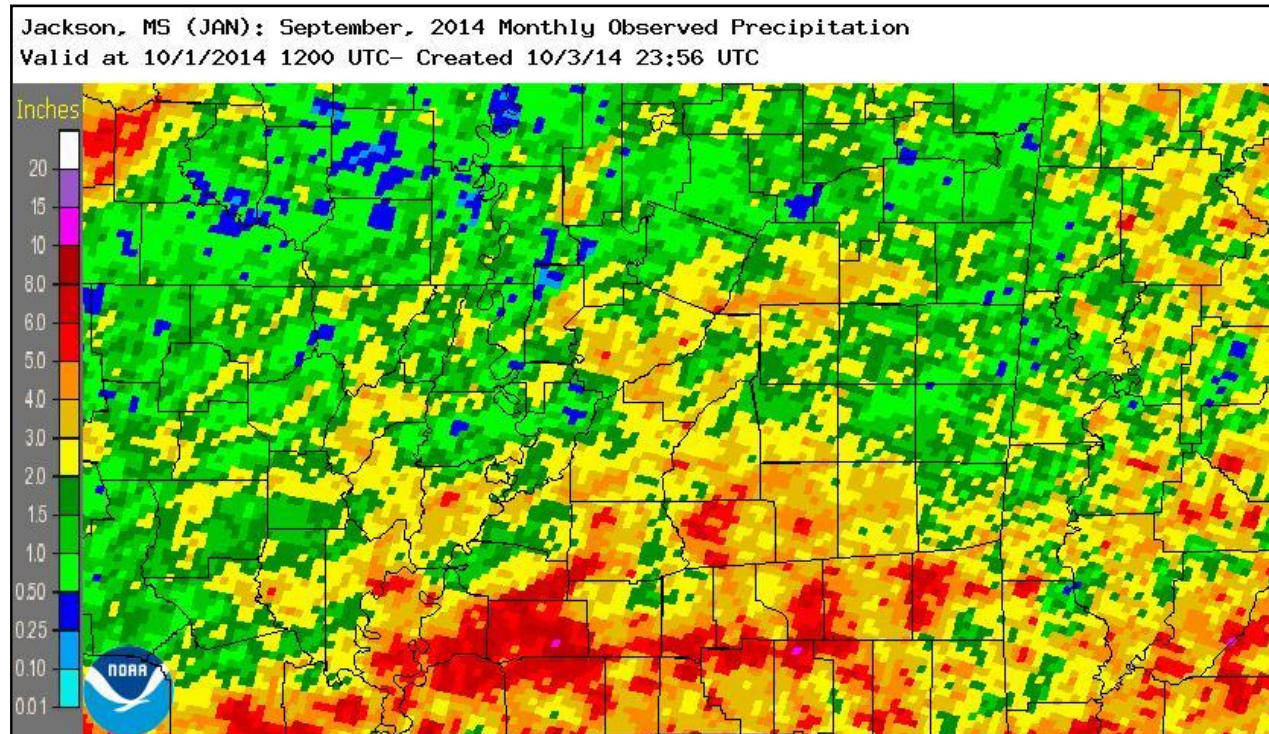
Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	16.25	9/21	7.31	9/06
Greenville	48	27.22	9/21	10.55	9/06
Vicksburg	43	22.03	9/23	13.01	9/08
Natchez	48	28.69	9/24	20.15	9/09

Rainfall for the Month of September:

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on July 31st until 7 am on September 31st were: 8.72 inches at Sumrall, MS; 6.53 inches in Richland, MS; 6.38 inches at Meadville, MS; 5.95 inches at North Hattiesburg, MS; and 5.31 inches at Union Church, MS.

Some lesser amounts: 0.53 inches at Moorhead, MS; 0.55 inches at Dermott, AR; 0.68 inches at Cleveland, MS; 0.71 inches at Vicksburg, MS; 0.72 inches at Vaiden, MS; 0.74 inches at Belzoni, MS; 0.80 inches at Rolling Fork, MS; 0.83 inches at Pat Harrison Waterway's Archusa Water Park, MS; 0.89 inches at Canton, MS; 0.90 inches at Okatibbee Reservoir, MS; 0.97 inches at Bastrop, LA; and 0.98 at Pat Harrison Waterway's Turkey Creek Water Park, MS.

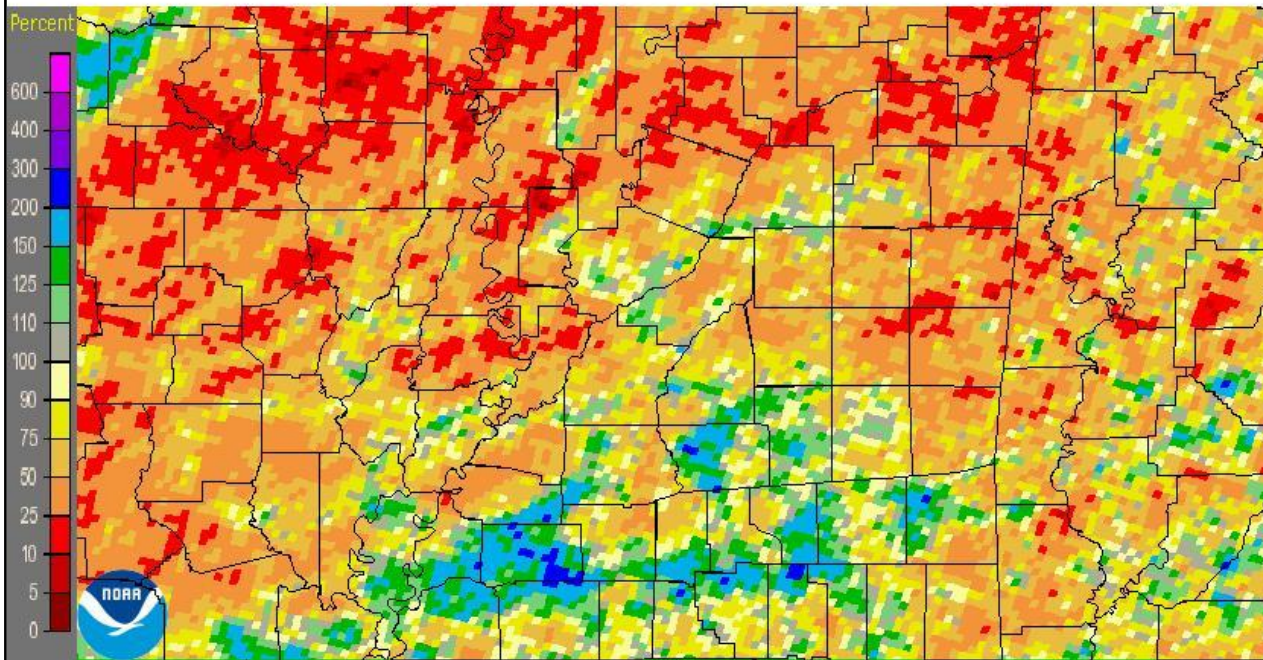
September Rainfall Estimates:



Note: Observer rainfall and MPE may differ due to time differences.

September Percent of Normal Precipitation:

Jackson, MS (JAN): September, 2014 Monthly Percent of Normal Precipitation
Valid at 10/1/2014 1200 UTC- Created 10/3/14 23:57 UTC



Note: Observer rainfall and MPE may differ due to time differences.

September Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2014 Rainfall	2014 Departure from Normal
Jackson (KJAN)	1.72	-1.31	45.40	+5.09
Meridian (KMEI)	1.69	-1.74	40.05	-2.34
Greenville (KGLH)	0.77	-2.31	40.49	+2.85
Greenwood (KGWO)	0.38	-3.28	41.14	+3.41
Hattiesburg (KHBG)	5.65	+1.57	42.93	-3.31
Vicksburg (KTVR)	1.00	-1.89	45.24	+5.78

Total Flood Warning products issued: 0

Total Flood Statement products issued: 0

Total Flood Advisories MS River: 0

Daily Climate and Ag WX Products (AGO'S) issued: 30

Daily CoCoRaHS Rainfall Products (LCO'S) issued: 30

Daily River and Lake Summary Products (RVD'S) issued: 30

Anna Weber

Assistant Hydrologist/ Meteorologist-Intern

&

Marty V. Pope

Service Hydrologist

Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District